

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Keith FitzPatrick
Serial No. : 10/612,196
For : SUBSTRATE FOR ENDLESS BELT FOR USE IN
PAPERMAKING APPLICATIONS
Filed : July 2, 2003
Examiner : Andrew T. Piziali
Art Unit : 1794
Confirmation No. : 4118

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New York, NY 10151

**SUBSTITUTE APPEAL BRIEF OF APPELLANT
IN REPLY TO EXAMINER'S ANSWER**

MAIL STOP APPEAL BRIEF- PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an Appeal from the Final Office Action mailed January 10, 2009, which issued in the above-identified application, finally rejecting claims 1-13 and 32-40, and from the Pre-Appeal Brief Conference Decision dated October 22, 2009, and in Reply to the Examiners Answer dated January 7, 2010. For the convenience of the Board, this Substitute Appeal Brief consolidates the Appeal Brief of record and the Reply to the Examiner's Answer in a single document. The period for response to Examiner's Answer is March 7, 2010. Please charge any additional fees required for

the Notice of Appeal, or otherwise occasioned by this paper or credit any overpayments to Deposit Account No. 50-0320.

REAL PARTY IN INTEREST

The real party in interest is Albany International Corp., 1373 Broadway, Albany, New York 12204, to which Appellant has assigned all interest in, to and under this application, by virtue of an assignment recorded on November 28, 2003 at reel 014748, frame 0854 of the assignment records of the Patent and Trademark Office.

RELATED APPEALS AND INTERFERENCES

Upon information and belief, the undersigned attorney does not believe that there is any appeal or interference that will directly affect, be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF THE CLAIMS

The Application was filed with claims 1-40 on July 2, 2003 and assigned Application Serial No. 10/612,196.

In a first Office Action dated May 26, 2006, the Examiner required an election of a species under 35 U.S.C. §121. Claims 1-10, 12-13, 32-33, 35-37, and 39-40 were rejected under 35 U.S.C. §102(b) over EP 0 960 975 to Davenport ("Davenport"). Claims 1-4, 6-11, 32-34, 37 and 39-40 were rejected over U.S. Patent No. 5,753,085 to FitzPatrick ("FitzPatrick") under 35 U.S.C. §102(b). Claims 5, 34, and 38 were rejected under 35 U.S.C. §102(b), or alternatively, under 35 U.S.C. §103 over

Davenport. Claims 5, 34, and 38 were rejected under 35 U.S.C. §102(b), or alternatively, under 35 U.S.C. §103 over FitzPatrick. Claim 11 was rejected under 35 U.S.C. §103 over Davenport in view of FitzPatrick.

In response to this Office Action Appellant filed a Response electing Group I, claims 1-13 and 32-40 while Group II and claims 14-31 were withdrawn from consideration; Appellant' Response argued against the claim rejections.

The Examiner then issued a Final Office Action dated November 01, 2006 in which the Examiner maintained the rejections in the first Office Action.

In response to this Final Office Action, Appellant filed a Response on January 3, 2007 amending the claims and arguing the claim rejections. The Examiner then issued an Advisory Action dated January 24, 2007, indicating that the amendment was not entered. In response to this Advisory Action, Appellant filed a Request for Continued Examination on February 21, 2007 requesting amendment be entered and the previously submitted response be considered.

A non-Final Office Action was mailed September 18, 2007 in which the Examiner rejected claims 3 and 36 under 35 U.S.C. §112. Claims 1-8, 10, 12-13, 32-40 were rejected under 35 U.S.C. §102(b) or alternatively, under 35 U.S.C. §103 over Davenport. Claims 1-11, 13, and 32-40 were rejected under 35 U.S.C. §102(b) or alternatively, under 35 U.S.C. §103 over FitzPatrick. Claims 9 and 11 were rejected under 35 U.S.C. §103 over Davenport in view of FitzPatrick.

In response to this Office Action Appellant filed an Amendment amending the claims arguing against the claim rejections.

The Examiner then issued a Final Office Action dated February 13, 2008 in which the Examiner withdrew the rejections under 35 U.S.C. §112 and the rejections of claims 1-8, 10, 12-13, 32-40 under 35 U.S.C. §102/103 over Davenport, and claims 9 and 11 under 35 U.S.C. §103 over Davenport in view of FitzPatrick. Claim 12 was newly rejected under 35 U.S.C. §103 over FitzPatrick in view of Davenport. The Examiner maintained the remaining rejection of claims 1-11, 13, and 32-40 were rejected under 35 U.S.C. §102(b) or alternatively, under 35 U.S.C. §103 over FitzPatrick.

In response to this Final Office Action, Appellant filed a Response on May 13, 2008 arguing the claim rejections. The Examiner then issued an Advisory Action dated June 2, 2008, indicating that the arguments were not persuasive. In response to this Advisory Action, Appellant filed a Request for Continued Examination as Submission on July 11, 2008 that amended the claims and argued the rejections.

A non-Final Office Action was mailed August 4, 2008 in which the Examiner rejected claims 1-13 and 32-40 under 35 U.S.C. §112. The Examiner repeated the rejections of the prior Final Office Action

On November 4, 2008 the Examiner and Appellant's representative had a telephonic interview on the Non-Final Office Action dated August 4, 2008. While agreement was not reached, the Examiner favorably indicated that the arguments proposed amendments would overcome the cited art of record, unless the Examiner found additional grounds for asserting the cited art upon further review. That same day, Appellant filed an Amendment in response to the Office Action amending the claims, memorializing the telephonic interview, and proffering the reasons why the rejections

were in error. On November 5, 2008 the Examiner issues and Interview Summary also stating that "further review would be required."

On January 30, 2009, the Examiner issues a Final Office Action repeating the prior rejections, with no new grounds or evidence of further review in the cited art. The interview and response were dismissed as "unsupported" attorney argument. On April 17, 2009, Appellant filed a Notice of Appeal and Pre-Appeal Brief Request responding to the Final Office Action and clarifying errors mischaracterizing Appellant's arguments. On May 13, 2009 the Panel returned a Decision finding at least one actual issue for appeal.

In response to this Final Office Action and Panel Decision, Appellant filed a Request for Continued Examination as Submission on July 2, 2009 and submitted a Declaration of Francis L. Davenport under 37 C.F.R. §1.132 ("Declaration").

On July 10, 2009, the Examiner issued a Final Office Action and maintained the rejections using the substantially the same arguments as before the submitted Declaration, dismissing the Declaration as unsupported argument. The Office Action was improperly made Final as new evidence in the form of a Declaration had been submitted with the Request for Continued Examination.

On September 24, 2009 Appellant filed a Notice of Appeal and Pre-Appeal Brief Request responding to the Final Office Action arguing the rejections and the failure to consider facts submitted in the Declaration. On October 22, 2009 the Panel returned a Decision finding at least one actual issue for appeal. An Appeal Brief was filed on November 23, 2009 pursuant to the Notice of Appeal and Pre-Appeal Brief Conference Decision.

On January 7, 2010, the Examiner issued an Examiner's Answer. This Substitute Appeal Brief is filed in reply to the Examiner's Answer.

Accordingly, the status of the claims may be summarized as follows:

Claims Withdrawn: 14-31

Claims allowed: None

Claims Objected to: None.

Claims Rejected: 1-13 and 32-40

Claims Appealed: 1-13 and 32-40

Claims Canceled: None

Rejected claims 1-40 are set forth in the Appendix attached hereto. Appellant is appealing the Final rejection of claims 1-13 and 32-40, which constitute all of the currently pending and non-withdrawn claims in this application. Appellant notes that the text of claim 1 is changed to accurately reflect the last amendment of record in the case, filed November 4, 2008

STATUS OF THE AMENDMENTS

Appellant believes that all the submitted Amendments have been entered.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The citations to Figures and Specification locations are provided immediately following elements of independent claims 1 and 32 which Appellant summarizes below. However, such citations are merely examples and are not intended to limit the interpretation of the claims or to evidence or create any estoppel.

Independent claim 1 recites a substrate useful for making an endless belt in a papermaking machine application comprising: a plurality of individual preformed layers [Page 7, lines 24-31, Figure 1] and a polymeric coating [Page 7, line 28] or impregnating material or rubber material [page 7, line 28, Page 8 line 26 to page 9 line 6] that is part of each of said individual preformed layers, wherein each individual preformed layer is a textile layer [page 8, lines 1-5] coated/impregnated with resin or the rubber material, and at least one layer of which contains a matrix of reinforcing components [page 8, lines 16-20].

Independent claim 32 recites a papermaker's process belt comprising: a plurality of individual layers of preformed material layers [Page 7, lines 24-31, Figure 1] that are first coated with a polymer resin [Page 7, line 28] or rubber material individually [page 7, line 28, Page 8 line 26 to page 9 line 6] and then combined to form a substrate of the belt [page 8, lines 5-7], wherein at least one individual layer includes a reinforcing component for stability in a machine direction (MD) or a cross-machine direction (CD) of the belt [page 8, lines 16-20].

GROUND FOR REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-11, 13 and 32-40 are patentable over U.S. Patent No. 5,753,085 to FitzPatrick under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. §103(a).

Whether claims 12 is patentable under 35 U.S.C. §103(a) over FitzPatrick in view of EP 0 960 975 to Davenport.

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ARGUMENTS

I. Claims 1-11, 13 and 32-40 are patentable over U.S. Patent No. 5,753,085 to FitzPatrick under 35 U.S.C. §102(b) or 35 U.S.C. §103(a)

Claims 1-40 are pending in this application. Claims 14-31 are withdrawn. Claims 1-11, 13 and 32-40 were rejected under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. §103(a) over U.S. Patent No. 5,753,085 to FitzPatrick ("FitzPatrick"). Claim 12 is rejected under 35 U.S.C. §103 over FitzPatrick in view of EP 0 960 975 to Davenport. Claims 1 and 32 are independent.

Claim 1 recites, inter alia:

A substrate useful for making an endless belt in a papermaking machine application comprising:

a plurality of individual preformed layers and a polymeric coating or impregnating material or rubber material that is part of each of said individual preformed layers,

wherein each individual preformed layer is a textile layer coated or impregnated coated or impregnated with resin or the rubber material, and

at least one layer of which contains a matrix of reinforcing components.

Independent claim 32 recites: "A papermaker's process belt comprising ...a plurality of individual layers of preformed material that are first coated with a polymer resin or rubber material individually and then combined to form a substrate of the belt."

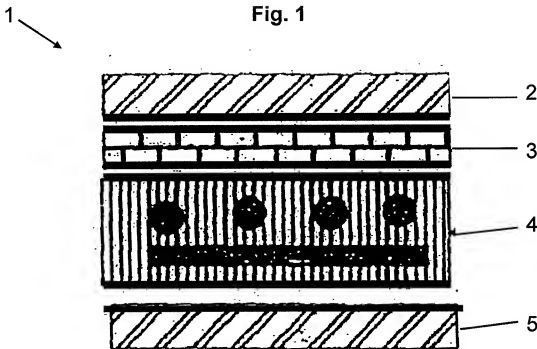
As amply explained in throughout prosecution and herein and evidenced by the record and the Declaration of Francis L. Davenport ("Davenport Declaration" or "the

Declaration"), FitzPatrick fails to teach the above-recited limitation, and instead shows a single textile layer formed as a multilayer weave, and that structure is then coated.

The claim recites "each individual preformed layer" is "coated or impregnated with resin or the rubber material." As explained at paragraph 0036 of the publication of the present application (U.S. Pat. Pub. 2005/003724, hereafter "the application"):

[0036] Referring to the drawings, Fig. 1 shows a layered substrate (1) of a long nip press belt for use in a papermaking machine in accordance with the teachings of the present invention. The substrate (1) comprises a surface layer (2), an intermediate layer (3), a reinforced central "core" (4) and a backing layer (5). The layers are individually coated with a polymeric resin, combined and secured by methods which may include those known in the art, and the composite forms the substrate of the belt for applications in papermaking machines.

To aid the Board, an annotated reproduction of exemplary Figure 1 is provided below:



As explained at paragraph 0042

[0042] The present process involves incorporating a thermoplastic or pre-polymer and curative (to form a polymer) in one or more of the components (2), (3), (4) or (5), or incorporating a layer of fusible material which may be a thermoplastic between layers, combining the components (2), (3), (4) or (5), **and bonding the components (2), (3), (4) or (5),** by subjecting the combination to elevated temperatures and pressure in a laminating process. **Any thermoplastic that softens and flows at an elevated**

temperature may be used as the coating or
impregnating resin.

Emphasis added. As discussed above and evidenced in paragraphs 0036 and 0042 of the application, because each layer is accordingly coated or impregnated, the layers have fusible material which allows **lamination between the layers to take place**. In order to aid the Board, red annotations have been added to denote exemplary locations of the fusible material that laminates the layers, as such material is coated or impregnated in each layer. As the illustration shows, such a technique causes **a fairly complete lamination between adjacent layers, at nearly 100 percent coverage**, and this is something that Fitzpatrick's structure does not achieve.

FitzPatrick fails to teach or render obvious the above-recited limitations, and instead shows a single textile layer formed as a multilayer weave, and that structure is then coated. Davenport Declaration ¶8. The independent claims require a substrate including **a plurality of individual preformed layers and a polymeric coating or impregnating material or rubber material that is a part of each of these individual preformed layers**. Davenport Declaration ¶9. Each individual preformed layer is a textile layer first coated/impregnated with resin or the rubber material — *i.e.*, the individual layers of preformed components are first coated or impregnated with a polymer resin and then combined to form the substrate of a belt for papermaking machine applications. Davenport Declaration ¶9. The properties of the claimed laminated substrate and the requirements for its use in papermaking, such as dewatering as in a shoe press belt, sheet support and uniform pressure distribution in the nip, or ease of transfer of the sheet of paper from one position to another, may be

predetermined by application of these processes. Davenport Declaration ¶¶10. In other words, belts having specific predetermined properties (including different properties on the face and shoe sides or face and back sides of the belt) may be produced by varying the "layers" or structures used in forming the instant substrate. Davenport Declaration ¶¶10. Thus the claims require a substrate that comprises a plurality of preformed layers and a polymeric coating, impregnating material or rubber material that is part of a respective layer, wherein each preformed layer is a textile layer or a textile layer coated or impregnated with resin or the rubber material, and at least one layer of which contains a matrix of reinforcing components. Davenport Declaration ¶¶11. Thereafter the preformed layers are joined by heat and/or pressure and an additional resin coating may be applied to either or both outside surfaces. Davenport Declaration ¶¶11.

Paragraphs 0036 and 0042 of the instant application clearly indicate that ***each layer that makes up the belt is laminated to an adjacent layer***. Davenport Declaration ¶¶12. Each preformed layer is a "textile layer" or a textile layer coated/impregnated with resin. Davenport Declaration ¶¶12. The individual layers are first coated/impregnated with a polymer resin and then combined to form the substrate of the belt for papermaking machine applications. Davenport Declaration ¶¶12. The coating/impregnating of the layers of the textile substrate can be carried out by the process described in FitzPatrick. Davenport Declaration ¶¶12. Thus each layer has either a coating already, or has a layer of fusible material inserted between layers to allow lamination to take place. *Id.*, paragraphs 0038, 0042. Davenport Declaration ¶¶12. It should also be noted one distinct structural advantage is that this technique causes nearly complete lamination ***between adjacent layers*** (100% coverage). Davenport

Declaration ¶12. Finally, the laminate could have a further resin coating as disclosed in paragraph 0044 of the instant specification. Davenport Declaration ¶12.

FitzPatrick, on the other hand, discloses a nip press belt having a textile substrate impregnated and coated on at least one side with a polymeric resin material. Davenport Declaration ¶13. FitzPatrick fails to teach the above-recited limitation, and instead shows a single textile layer formed as a multilayer weave, and that structure is then coated. Davenport Declaration ¶13. ***FitzPatrick does not disclose a multilayer structure as claimed in claim 1 and 32.*** Davenport Declaration ¶13.

In detail, FitzPatrick's long nip press belt has a textile substrate impregnated and coated on at least one side with a polymeric resin material. *FitzPatrick, Abstract.* Davenport Declaration ¶14. The polymeric resin material is ground and buffed after being cured to provide the belt with a smooth surface and a uniform thickness. *Id.* Davenport Declaration ¶14. The textile substrate may include textile components (monofilaments, continuous fine filaments or staple fibers) having non-circular cross sections with a plurality of lobes. *Id.* Davenport Declaration ¶14. As a result, FitzPatrick does not disclose the multilayer constructions recited in claims 1 and 32. Davenport Declaration ¶15. FitzPatrick does not provide for a substrate "comprising a ***plurality of preformed layers*** and a polymeric ***coating or impregnating material or rubber material that is part of a respective layer***, wherein ***each preformed layer is a textile layer or a textile layer coated/impregnated with resin or the rubber material***, and at least one layer of which contains a matrix of reinforcing components" as claimed in claim 1. Davenport Declaration ¶15. Nor does FitzPatrick provide for

"layers of preformed material that are first coated then combined to form a substrate of the belt" as claimed in claim 32. Davenport Declaration ¶¶15.

Throughout prosecution, the Examiner relied upon Figure 6 and its accompanying disclosure in FitzPatrick to support the allegation that FitzPatrick teaches the claim limitations, contending FitzPatrick's structure is the same or only slightly different. This allegation is in error. FitzPatrick, and Figure 6 specifically, shows three layers of material (e.g. yarns) not woven together. *FitzPatrick*, col. 5, lines 38-49. Davenport Declaration ¶¶16. **After** those layers are brought into contact with each other, a **single** coating layer 50 is applied to this entire substrate of layers. *Id.* Davenport Declaration ¶¶16. FitzPatrick specifically discloses that the transverse continuous fine filaments 46 and longitudinal continuous fine filaments 48 are not interwoven with one another, but form a non-woven matrix. *Id.* Davenport Declaration ¶¶16. A polymeric resin coating 50 is provided on both sides of long nip press belt 44. *Id.* Davenport Declaration ¶¶16. To those of ordinary skill in the art, the single polymeric resin coating 50 in FitzPatrick is clearly different from the **distinct** resin layers of the instant invention *i.e.* a polymeric coating or impregnating material or rubber material that is part of **each** of said individual preformed layers. Davenport Declaration ¶¶16.

In contrast, as paragraphs 0036 and 0042 of the present application clearly explain, each layer that makes up the belt is laminated to an adjacent layer. Davenport Declaration ¶¶12, 17. Each layer has either a coating already, or has a layer of fusible material inserted between layers to allow lamination to take place (paragraphs 0038, 0042). Davenport Declaration ¶¶12, 17. The claimed technique causes a fairly complete lamination between adjacent layers (nearly 100% coverage), thereby resulting

in a structurally different construction than the impregnated structure of FitzPatrick.

Davenport Declaration ¶¶12, 17.

In the Advisory Action dated June 2, 2008, the Examiner alleges that FitzPatrick illustrates a multi-layer structure via Figure 5's multilayer weave. Figure 5 is described at col. 5, lines 26-37 of FitzPatrick, and in particular, lines 32-35. As explained in the Submission filed on July 11, 2008, what Figure 5 clearly shows is "[t]ransverse yarns, 30 are interwoven with longitudinal yarns 40 in a multilayer weave." *FitzPatrick*, col. 5, lines 32-35. Davenport Declaration ¶18. There is no plurality of individual preformed layers that are "textile layers." Davenport Declaration ¶18. Rather, Figure 5 shows a single textile layer formed of a multilayer weave. *Id.* Davenport Declaration ¶18. Because FitzPatrick's layers are formed by interweaving, each individual layer cannot be preformed, nor first coated/impregnated with resin or the rubber material. Davenport Declaration ¶18.

At page 5 of the August 4, 2008 Office Action, the Examiner responded to the all the facts above by alleging "applicant has failed to show, or attempt to show, that the process disclosed by FitzPatrick results in a patentably distinct structure." However, the facts above clearly show this assertion to be in error. To summarize, Figure 6 of FitzPatrick shows three layers of materials such as yarns, which are brought together. Davenport Declaration ¶16, 19. This entire substrate is then covered with a single coating. See col. 5 lines 38-49 of *FitzPatrick*. Davenport Declaration ¶16, 19. Figure 5 shows a single textile layer formed of a multilayer weave. *FitzPatrick*, col. 5, lines 32-35. Davenport Declaration ¶18, 19. The claims, to the contrary, recite that "each individual preformed layer" is "coated or impregnated with resin or the rubber material"

or that "a plurality of individual layers of preformed material [] are first coated with a polymer resin or rubber material individually and then combined to form a substrate of the belt." Davenport Declaration ¶19. As each layer is accordingly coated or impregnated, the layers have fusible material which allows lamination between the layers to take place. Such a technique causes **a fairly complete lamination between adjacent layers, at nearly 100 percent coverage**, and this is something that FitzPatrick's structure does not achieve. Davenport Declaration ¶¶12, 17, 19. Structurally, FitzPatrick's substrate does not have the distinct resin layers as claimed: "a polymeric coating or impregnating material or rubber material that is **a part of each said individual preformed layer**, wherein **each individual preformed layer** is a textile layer coated or impregnated with resin or the rubber material," (claim 1) or "**a plurality of individual layers of preformed material that are first coated with a polymer resin or rubber material individually and then combined to form a substrate of the belt**" (claim 32). Davenport Declaration ¶19.

Thus as shown throughout prosecution and herein and evidenced by, among other things, the Declaration of Francis L. Davenport, FitzPatrick fails to teach the above-recited limitation, and instead shows a single textile layer formed as a multilayer weave, and that structure is then coated. Yet the Examiner has not properly considered the Davenport Declaration during prosecution. To explain, on November 4, 2008 the Examiner and Appellant's representative had a telephonic interview on the Non-Final Office Action dated August 4, 2008, which recited the same grounds of rejection and reasons therefor as presently asserted, including that Appellant had "failed to show, or

attempt to show that this process disclosed by FitzPatrick results in a patentably distinct structure."

During the interview appellant's representative explained, as discussed above and evidenced in paragraphs 0036 and 0042 of the published application, because each layer is accordingly coated or impregnated, the layers have fusible material which allows **lamination between the layers to take place**. Appellant's representative explained how such a technique causes **a fairly complete lamination between adjacent layers, at nearly 100 percent coverage**, and this is something that Fitzpatrick's structure does not achieve.

Indeed, the Examiner assented to this during the interview, tentatively agreeing that the claimed invention is, to use a crude analogy, like a 3-plus layered peanut-butter and jelly sandwich, where the "coating," due to being between each layer, results in more substantial coverage, than say, a cake with frosting only on the outside. While agreement was not reached, the Examiner favorably indicated that the arguments above would overcome the cited art of record, unless the Examiner found additional grounds for asserting the cited art upon further review. The next Final Office Action, however, had no new grounds in the cited art at all, but relegated the discussion to "unsupported" attorney argument. Although the evidence of record did support the arguments proffered, Appellant submitted the Davenport Declaration as evidentiary support of, *inter alia*, an ordinarily skilled artisan's understanding of the evidence of record -- one the Examiner shared during the telephonic interview -- and facts relevant thereto.

Despite this fact, the Examiner maintained the present rejections using the substantially the same arguments before and after the submitted Davenport Declaration. The evidence of record provides evidence of the more complete lamination of the claimed substrate. The Davenport Declaration comprises the statements of fact of an expert in the field to which this application pertains. Without repeating the entirety of the Declaration, which speaks for itself, unaddressed evidence and **facts** adduced above include, but are not limited to:

- The claims require a substrate that comprises a plurality of preformed layers and a polymeric coating, impregnating material or rubber material that is part of a respective layer, wherein each preformed layer is a textile layer or a textile layer coated or impregnated with resin or the rubber material, and at least one layer of which contains a matrix of reinforcing components. Davenport Declaration ¶11.
- Figure 6 shows three layers of material (e.g. yarns) not woven together. *FitzPatrick*, col. 5, lines 38-49. Davenport Declaration ¶16. **After** those layers are brought into contact with each other, a **single** coating layer 50 is applied to this entire substrate of layers. *Id.* Davenport Declaration ¶16.
- *FitzPatrick* specifically discloses that the transverse continuous fine filaments 46 and longitudinal continuous fine filaments 48 are not interwoven with one another, but form a non-woven matrix. *Id.* Davenport Declaration ¶16. A polymeric resin coating 50 is provided on both sides of long nip press belt 44. *Id.* Davenport Declaration ¶16.
- To those of ordinary skill in the art, the single polymeric resin coating 50 in *FitzPatrick* is clearly different from the **distinct** resin layers of the instant

invention *i.e.* a polymeric coating or impregnating material or rubber material that is part of **each** of said individual preformed layers. Davenport Declaration ¶16.

- FitzPatrick shows a single textile layer formed of a multilayer weave. *FitzPatrick*, col. 5, lines 32-35. Davenport Declaration ¶18, 19.
- The claims, to the contrary, recite that "each individual preformed layer" is "coated or impregnated with resin or the rubber material" or that "a plurality of individual layers of preformed material [] are first coated with a polymer resin or rubber material individually and then combined to form a substrate of the belt." Davenport Declaration ¶19.
- As each layer is accordingly coated or impregnated, the layers have fusible material which allows lamination between the layers to take place. Such a technique causes **a fairly complete lamination between adjacent layers, at nearly 100 percent coverage**, and this is something that FitzPatrick's structure does not achieve. Davenport Declaration ¶¶12, 17, 19.

The Examiner presently alleges that the fact that the present invention results in nearly complete lamination is "unsupported argument," and ignored the remaining evidence and facts presented. The Examiner's rebuttal was to simply say that Appellant had not shown that Fitzpatrick does not achieve 100 percent coverage, even though Appellant had proffered the testimony of an ordinarily skilled artisan that FitzPartick's textile substrate is deficient in just this respect and explained why.

The 1974 case that the Office Action cites against the alleged "unsupported argument" is, *In re Pearson*, 494 F.2d 1399, 1405, which stands for the proposition that **attorney argument**, is not a substitute for evidence in the record: "Attorney's argument

in a brief cannot take the place of evidence." *Id.* An Affidavit or Declaration under 37 CFR 1.132 presents evidence, and must be considered and addressed. See MPEP 2145. The Examiner's dismissal of the statements of fact throughout the Declaration and the evidence of record as "unsupported argument," is in error, and has deprived the Appellant of a full and fair hearing. As MPEP 2145 states:

Office personnel should consider all rebuttal arguments and evidence presented by applicants. See, e.g., *Soni*, 54 F.3d at 750, 34 USPQ2d at 1687 (error not to consider evidence presented in the specification). C.f., *In re Alton*, 76 F.3d 1168, 37 USPQ2d 1578 (Fed. Cir. 1996) (error not to consider factual evidence submitted to counter a 35 U.S.C. 112 rejection); *In re Beattie*, 974 F.2d 1309, 1313, 24 USPQ2d 1040, 1042-43 (Fed. Cir. 1992) (Office personnel should consider declarations from those skilled in the art praising the claimed invention and opining that the art teaches away from the invention.)

Also, Appellant showed that as claimed, each individual preformed layer is a textile layer first coated/impregnated with resin or the rubber material – i.e., the individual layers of preformed components are first coated or impregnated with a polymer resin and then combined to form the substrate of a belt for papermaking machine applications. Davenport Declaration ¶¶9. The properties of the claimed laminated substrate and the requirements for its use in papermaking, such as dewatering as in a shoe press belt, sheet support and uniform pressure distribution in

the nip, or ease of transfer of the sheet of paper from one position to another, may be predetermined by application of these processes. Davenport Declaration ¶10. In other words, belts having specific predetermined properties (including different properties on the face and shoe sides or face and back sides of the belt) may be produced by varying the "layers" or structures used in forming the instant substrate. Davenport Declaration ¶10. In response, the Office Action alleges that these are "limitations from the specification not read into the claims." However, the proof was proffered to show that the clearly different structure of the claims imparts advantages that FitzPatrick's structures cannot achieve. Hence the evidence shows yet another reason why the claimed substrate is not "identical to or only slightly different from" FitzPatrick textile substrate, which is the only reason the Examiner has proffered in support of his rejection.

On January 7, 2010, the Examiner issued an Examiner's Answer, which expands on the Examiner's arguments and raises new issues of interpretation, the points of which are addressed in turn below.

Point 1: Figure 6 of Fitzpatrick fails to teach the claimed multilayer structure.

The independent claims require a substrate including **a plurality of individual preformed layers and a polymeric coating or impregnating material or rubber material that is a part of each of these individual preformed layers**. Davenport Declaration ¶9. Thus the claims require a substrate that comprises a plurality of preformed layers and a polymeric coating, impregnating material or rubber material that is part of a respective layer, wherein each preformed layer is a textile layer or a textile layer coated or impregnated with resin or the rubber material, and at least one layer of which contains a matrix of reinforcing components. Davenport Declaration ¶11.

The Examiner alleges at page 5, as he has throughout prosecution, that "[t]he appellant asserts that Fitzpatrick fails to teach or suggest a multilayer structure." With all due respect to the Examiner, as has been pointed out severally in prior responses, this mischaracterizes Appellant's arguments. The Appellant has expressly argued that Fitzpatrick does not disclose or render predictable the ***claimed*** multilayer structure. ("FitzPatrick does not disclose a multilayer structure as claimed in claim 1 and 32. Davenport Declaration ¶13." Emphasis added.)

As Appellant has repeatedly argued, Figure 6 shows three layers of material (e.g. yarns) not woven together. *FitzPatrick*, col. 5, lines 38-49. Davenport Declaration ¶16. ***After*** those layers are brought into contact with each other, a ***single*** coating layer 50 is applied to this entire substrate of layers. *Id.* Davenport Declaration ¶16. FitzPatrick specifically discloses that the transverse continuous fine filaments 46 and longitudinal continuous fine filaments 48 are not interwoven with one another, but form a non-woven matrix. *Id.* Davenport Declaration ¶16. The independent claims require a substrate including ***a plurality of individual preformed layers*** and ***a polymeric coating or impregnating material or rubber material that is a part of each of these individual preformed layers.***

The Examiner's Answer cites to column 3, lines 57-63 of FitzPatrick, stating that "it is explicitly disclosed that the resin material impregnates the textile substrate." Appellatn agrees. In FitzPatrick it is the ***finished belt*** that is coated, not each of the individual preformed layers. The impregnation the Examiner refers to is to render the shoe-side of a long-nip press belt impervious to oil and water. As explained at column 1, line 56 to column 2, line 10 of FitzPatrick, such shoe-press belts must be impervious

on the shoe-side, because the oil from an arcuate shoe press will functionally destroy the belt otherwise. Indeed, such belts are described in the present specification:

[0019] Further to the above disclosures, a long nip press of the shoe type requires a special belt, such as the belt shown in U.S. Pat. No. 5,238,537. This belt is designed to protect the press fabric supporting, carrying and dewatering the paper web from accelerated wear that would result from direct, sliding contact over the stationary pressure shoe. Such a belt must be provided with a smooth, impervious surface that rides, or slides, over the stationary shoe on a lubricating film of oil as the belt moves through the nip at roughly the same speed as the press fabric, while keeping that oil contained within its circumference.

[0020] Belts of the variety shown in the '537 patent are typically made by impregnating a woven base fabric, generally in the form of an endless loop, with a synthetic polymeric resin. Preferably, the resin forms a coating of some predetermined thickness at least on the inner surface of the belt, so that the yarns from which the base fabric is woven may be protected from direct contact with the arcuate pressure shoe component of the long nip press. It is specifically this coating which must have a smooth, impervious surface to slide readily over the lubricated shoe and to prevent any of the lubricating oil from penetrating the structure of the belt to contaminate the press fabric, or fabrics, and fibrous web.

[0021] **The base fabric of the belt shown in the '537 patent may be woven from monofilament yarns in a**

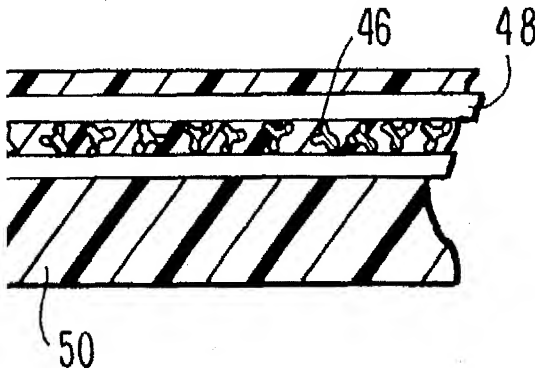
single- or multilayer weave, and to be sufficiently open to allow the impregnating material to totally impregnate the weave. This eliminates the possibility of any voids forming in the final belt. Such voids may allow the lubrication used between the belt and shoe to pass through the belt and contaminate the press fabric or fabrics and fibrous web.

[0022] When the impregnating material is cured to a solid, it is primarily bound to the base fabric by a mechanical interlock, wherein the cured impregnating material surrounds the yarns of the base fabric. In addition, there may be chemical bonding or adhesion between the cured impregnating material and the material of the yarns of the base fabric.

Yet none of this teaches, discloses, or renders predictable a substrate "wherein each **individual preformed layer** is a textile layer coated or impregnated with resin or the rubber material." It simply discloses that the shoe-side is coated and impregnated to a sufficient degree to render the belt impervious to oil and water. As explained in the present specification:

[0026] Furthermore, in the prior art (e.g. the '537 patent), long nip press belts comprising a textile fabric substrate coated or impregnated with a polymeric resin are produced by first coating or impregnating the substrate with the resin and then forming it into a belt by curing the coated or impregnated substrate. Whereas, in the present invention, a superior belting product is obtained by first coating or impregnating the individual components/layers of the textile fabric substrate with a polymeric resin, combining the coated or impregnated components/layers to form the substrate and then curing the substrate to form the belt.

Applying this citation to Figure 6 of FitzPatrick, this adds to the evidence of record that, as explained in the Declaration. As an aid to the Board, Figure 6 is reproduced below:



As is clear, Figure 6 is in line with the description "[t]he base fabric of the belt shown in the '537 patent may be woven from monofilament yarns in a single- or multilayer weave," described above in paragraph 0021 the specification above. Again, as explained in the Declaration and during prosecution, Figure 6 shows three layers of material (e.g. yarns) not woven together. *FitzPatrick*, col. 5, lines 38-49. Davenport Declaration ¶16. **After** those layers are brought into contact with each other, a **single** coating layer 50 is applied to this entire substrate of layers. *Id.* *FitzPatrick* specifically discloses that the transverse continuous fine filaments 46 and longitudinal continuous

fine filaments 48 are not interwoven with one another, but form a non-woven matrix. *Id.* Davenport Declaration ¶¶16. A polymeric resin coating 50 is provided on both sides of long nip press belt 44. *Id.* Davenport Declaration ¶¶16. To those of ordinary skill in the art, the single polymeric resin coating 50 in FitzPatrick is clearly different from the **distinct** resin layers of the instant invention *i.e.* a polymeric coating or impregnating material or rubber material that is part of **each** of said individual preformed layers. Davenport Declaration ¶¶16

Looking at the yarns -- the layers -- as brought together in Figure 6, the points of contact for the yarns do not admit space for the impregnating resin to enter, and the resin must flow between the threads. Thus, as explained in the Declaration, FitzPatrick does not achieve **a fairly complete lamination between adjacent layers, at nearly 100 percent coverage**. Davenport Declaration ¶¶¶12, 17, 19.

In contrast, referring to again the annotated Figure 1 of the present application above, as discussed above and in the Appeal Brief and evidenced in paragraphs 0036 and 0042 of the application, because each layer is accordingly coated or impregnated, the layers have fusible material which allows **lamination between the layers to take place**. The red annotations have been added to denote exemplary locations of the fusible material that laminates the layers, as such material is coated or impregnated in each layer. As the illustration shows, such a technique causes **a fairly complete lamination between adjacent layers, at nearly 100 percent coverage**, and this is something that Fitzpatrick's structure does not achieve. Davenport Declaration ¶¶¶12, 17, 19.

Thus again, structurally, FitzPatrick's substrate does not have the distinct resin layers as claimed: "a polymeric coating or impregnating material or rubber material that is **a part of each said individual preformed layer**, wherein **each individual preformed layer** is a textile layer coated or impregnated with resin or the rubber material," (claim 1) or "**a plurality of individual layers of preformed material that are first coated with a polymer resin or rubber material individually and then combined to form a substrate of the belt**" (claim 32). Davenport Declaration ¶19.

Point 2: The independent claims recite and require a plurality of individual layers of preformed material that are first coated with a polymer resin or rubber material individually and then combined to form a substrate of the belt.

At page 6 the Examiner states: "the feature upon which applicant relies (i.e., fairly complete lamination between adjacent layers, at nearly 100 percent coverage) is not recited in the rejected claims. On the contrary, claim 1 does not even mention the layers being combined or laminated."

First, the allegedly unrecited feature is expressly recited in claim 32: "**a plurality of individual layers of preformed material that are first coated with a polymer resin or rubber material individually and then combined to form a substrate of the belt.**"

Next, with both independent claims 1 and 32, this is a surprising argument on the part of the Examiner, as the language of the claims was discussed during an interview, and provided for in the course of rejections and responses under 35 U.S.C. §112. Appellants note for the record that it has had an interview with the Examiner to attempt to produce claim language that all agreed would clarify the issues for appeal. Appellants believed it was understood by all parties that as the claims recite: "a plurality

of individual preformed layers and a polymeric coating or impregnating material or rubber material that is part of each of said individual preformed layers, wherein each individual preformed layer is a textile layer coated or impregnated with resin or the rubber material." the claimed features unambiguously refer to impregnated preformed layers. Thus by definition, individual preformed layers must be combined to form the substrate of the belt.

If the Examiner is now or has been relying on an interpretation of the present claims that allows for unimpregnated or uncoated layers to be brought together and thereafter coated, it is not only against the broadest reasonable interpretation in view of the plain language of the claims and **consistent with the whole specification**, but it is also one that is being asserted in the face of advisory actions, interviews and good faith attempts to clearly recited this distinction for the purposes of advancing prosecution.

First, over and above the plain language of the claims, the specification clearly distinguishes over individual preformed layers that are not preformed with a coating or impregnate. During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification. The Federal Circuit's en banc decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO employs the 'broadest reasonable interpretation' standard.... The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999)." MPEP §2111. The specification itself clearly shows that the Examiner's claim interpretation does not accord with the broadest reasonable interpretation consistent

with the specification. To the contrary, the specification of the present application **expressly contrasts "incorporating a thermoplastic or pre-polymer and curative (to form a polymer) in one or more of the components (2), (3), (4) or (5), or incorporating a layer of fusible material which may be a thermoplastic between layers, combining the components (2), (3), (4) or (5), and bonding the components (2), (3), (4) or (5),"** with that of long-nip press belts such as those of FitzPatrick:

[0019] Further to the above disclosures, a long nip press of the shoe type requires a special belt, such as the belt shown in U.S. Pat. No. 5,238,537. ...

[0020] Belts of the variety shown in the '537 patent are typically made by impregnating a woven base fabric, generally in the form of an endless loop, with a synthetic polymeric resin. ...

[0021] The base fabric of the belt shown in the '537 patent may be woven from monofilament yarns in a single- or multilayer weave, and to be sufficiently open to allow the impregnating material to totally impregnate the weave. This eliminates the possibility of any voids forming in the final belt. Such voids may allow the lubrication used between the belt and shoe to pass through the belt and contaminate the press fabric or fabrics and fibrous web....

[0026] Furthermore, in the prior art (e.g. the '537 patent), long nip press belts comprising a textile fabric substrate coated or impregnated with a polymeric resin are produced by first coating or impregnating the substrate with the resin

and then forming it into a belt by curing the coated or impregnated substrate. Whereas, in the present invention, a superior belting product is obtained by first coating or impregnating the individual components/layers of the textile fabric substrate with a polymeric resin, combining the coated or impregnated components/layers to form the substrate and then curing the substrate to form the belt.

Thus, as the specification shows, the Examiner's interpretation is not consistent with the specification, but is utterly contrary to it.

See also Paragraph 9 of the Declaration:

The independent claims require a substrate including a plurality of individual preformed layers and a polymeric coating or impregnating material or rubber material that is apart of each of these individual preformed layers. Each individual preformed layer is a textile layer first coated/impregnated with resin or the rubber material --i. e., the individual layers of preformed components are first coated or impregnated with a polymer resin and then combined to form the substrate of a belt for papermaking machine applications.

Indeed, Appellant's efforts to clarify this issue have been met with unusual resistance. Early in prosecution, the claims were amended to recite the structure at issue, and in an Advisory Action dated January 24 2007, a previous Examiner in the case stated: "That the polymer or rubber material is a part of each of the preform layers raises new issues that would require further consideration and/or search." This required a Request for Continued Examination to even have the language considered.

Later, in attempting a further clarification of this issue, Appellant attempted the following clarifying amendment to claim 1: wherein each individual preformed layer is a

textile layer first coated/impregnated with resin or the rubber material." The Examiner resorted to a rejection under 35 U.S.C. § 112, second paragraph, stating that the claim was unclear due to the alleged failure to recite an additional step. During an interview, agreement was reached on the rejections over 112, in which Appellant reported in the following amendment and response:

Claims 1-13 and 32-40 are rejected under 35 U.S.C. § 112, second paragraph. The Office Action rejects claims 1-13, 39 and 40 alleging that the term "first" is unclear because the claim does not specify the subsequent step. Applicant notes that the amendment was simply a clarifying amendment, and did not change the scope of the claim. The claims presently recite "a polymeric coating or impregnating material or a rubber material that is a part of each [of] said individual preformed layers," in that "each individual preformed layer is a textile layer coated or impregnated with a resin or the rubber material." Thus the claims are clear that the claimed substrate is formed of individual layers of preformed components that are first coated or impregnated with a polymer resin or rubber material and then combined to form the claimed substrate. The use of the term "first" was simply to clarify that each individual preformed layer is itself coated or impregnated with a resin or rubber material. However, even absent the term "first," claim 1 clearly recites that "each individual preformed layer" is a textile layer coated or impregnated with a resin or rubber material. That is to say, it is perfectly clear that each individual preformed layer is itself coated or impregnated.

Appellant would urge that the Examiner did not disagree with this on the record, and prosecution proceeded on this basis. If the Examiner disagreed, Appellant respectfully submits that the Examiner had a duty to clearly give such reasons during prosecution:

In order to provide a complete application file history and to enhance the clarity of the prosecution history record, an examiner must provide clear explanations of all actions taken by the examiner during prosecution of an application.

...If applicant's arguments are persuasive and upon reconsideration of the rejection, the examiner determines that the previous rejection should be withdrawn, the examiner must provide in the next Office communication the reasons why the previous rejection is withdrawn by referring specifically to the page(s) and line(s) of applicant's remarks which form the basis for withdrawing the rejection....

MPEP 707(f). However, the following Office Action of July 10, 2009 simply withdrew the rejection without comment.

Point 3: The Examiner has ignored the evidence that the claimed structure achieves fairly complete lamination between adjacent layers, at nearly 100 percent coverage.

At page 6, the Examiner alleges: "[s]econdly, the appellant fails to provide evidence to support the assertion that the currently claimed product-by-process limitations necessarily result in "fairly complete lamination between adjacent layers, at nearly 100 percent coverage." Rather, the current claims simply state that each preformed layer is coated/impregnated with resin or rubber material. It is noted that the current claims do not even require that each preformed layer is 100% coated or 100% impregnated. It is well settled that unsupported arguments are no substitute for

objective evidence. *In re Pearson*, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974)."

Save for the new argument that the claims do not expressly recite the advantages of the claimed structure, the Examiner has otherwise severally cited and relied upon *In re Pearson* throughout prosecution to allege the Applicants have only "unsupported arguments," and thereby deny any need to answer their substance.

As has been pointed out in the Appeal Brief and above, as well as throughout prosecution, the 1974 *In re Pearson* case that the Final Office Action relies upon for its allegation of "unsupported argument" stands for the proposition that **attorney argument** is not a substitute for evidence in the record, *In re Pearson* says: "Attorney's argument in a brief cannot take the place of evidence." *Id.* An Affidavit or Declaration under 37 CFR 1.132 presents evidence, and must be considered and addressed. See MPEP 2145. It is not attorney argument. The Examiner's dismissal of the statements of fact throughout the Declaration and the evidence of record as "unsupported argument," is in error, and attempts to deprive the Appellant of a full and fair hearing.

The Declaration comprises the statements of fact of an expert in the field to which this application pertains, as fully explicated in the Appeal Brief and during prosecution. Again the Examiner's wholesale failure to consider statements of fact throughout the Declaration as "unsupported argument," or even acknowledge it is evidence at all, is in error. As MPEP 2145 states:

Office personnel should consider all rebuttal arguments and evidence presented by applicants. See, e.g., *Soni*, 54 F.3d at 750, 34 USPQ2d at 1687 (error not to consider evidence presented in the specification). C.f., *In re Alton*, 76 F.3d

1168, 37 USPQ2d 1578 (Fed. Cir. 1996) (error not to consider factual evidence submitted to counter a 35 U.S.C. 112 rejection); *In re Beattie*, 974 F.2d 1309, 1313, 24 USPQ2d 1040, 1042-43 (Fed. Cir. 1992) (Office personnel should consider declarations from those skilled in the art praising the claimed invention and opining that the art teaches away from the invention.)

The failure to acknowledge that the Declaration constitutes evidence, but instead to ignore it as mere argument should be construed in Appellants favor. Again, as explained at MPEP 707.07(f):

If it is the examiner's considered opinion that the asserted advantages are not sufficient to overcome the rejection(s) of record, he or she should state the reasons for his or her position in the record, preferably in the action following the assertion or argument relative to such advantages. By so doing the applicant will know that the asserted advantages have actually been considered by the examiner and, if appeal is taken, the Board of Patent Appeals and Interferences will also be advised. See MPEP § 716 *et seq.* for the treatment of affidavits and declarations under 37 CFR 1.132.

The importance of answering applicant's arguments is illustrated by *In re Hermann*, 261 F.2d 598, 120 USPQ 182 (CCPA 1958) where the applicant urged that the subject matter claimed produced new and useful results. The court noted that since applicant's statement of advantages was not questioned by the examiner or the Board of Appeals, it was constrained to accept the statement at face value and therefore found certain claims to be allowable. See also *In re*

Soni, 54 F.3d 746, 751, 34 USPQ2d 1684, 1688 (Fed. Cir.
1995) (Office failed to rebut applicant's argument).

Here, the Examiner has not so much as questioned the evidence of, *inter alia*, the asserted advantages as evidenced by the Declaration and specification, so much as ignored that it is evidence at all.

As for the allegation that the claims should recite fairly complete lamination between adjacent layers at nearly 100 percent coverage, the Appeal Brief, Declaration, and remarks above explain that the claimed structure as presently drafted has this advantage over prior art structures, including FitzPatrick, and need not be repeated again here. There is no requirement that every advantage of a structure be expressly recited so long as the claimed structure has this advantage. The Declaration and Appeal Brief explains, citing to the art and Figures of record (i.e., Figures 5 and 6 as cited by the Examiner) and the present Specification, why the claimed invention has this advantage and FitzPatrick does not. Again, the Examiner has not so much as answered the evidence as ignored it, and thus should be constrained to accept the evidence. Moreover, this point has been present for several rounds of prosecution. If the Examiner has throughout this period believed such a recitation was needful to obtain the benefit of it, which it is not, Office procedure encourages suggesting such an amendment in order to advance prosecution, not saving such suggestions for an Examiner's Answer.

For at least the foregoing reasons, Appellant respectfully submits that independent claims 1 and 32 are patentable over FitzPatrick and are therefore allowable. Claims 2-11, 13 and 33-40 each ultimately depend from independent claims

1 and 32, discussed above, and are therefore patentable for at least the same reasons. Thus dependent claims 2-11, 13 and 33-40 stand or fall with independent claims 1 and 32. Appellant thereby respectfully requests reversal of the rejections and allowance of the claims by this Honorable Board.

II. Claim 12 is patentable over FitzPatrick in view of EP 0 960 975 to Davenport under 35 U.S.C. §103(a)

For at least the reasons above, Appellant respectfully submits that independent claims 1 and 32 are patentable over FitzPatrick and are therefore allowable. Nothing in Davenport cures these deficiencies. Claims 12 depends from independent claims 1 and 32, discussed above, and are therefore patentable for at least the same reasons. Thus dependent claims 12 stands or falls with independent claims 1 and 32. Appellant thereby respectfully requests reversal of the rejections and allowance of the claims by this Honorable Board.

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CONCLUSION

For the reasons discussed above, claims 1-13 and 32-40 are patentable. It is, therefore, respectfully submitted that the Examiner erred in rejecting claims 1-13 and 32-40, and Appellant requests a reversal of these rejections by this Honorable Board. As a result, the allowance of this application should be mandated.

Respectfully submitted,

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APPENDIX I

CLAIMS ON APPEAL

What is claimed is:

1. (Previously Presented) A substrate useful for making an endless belt in a papermaking machine application comprising:

a plurality of individual preformed layers and a polymeric coating or impregnating material or rubber material that is part of each of said individual preformed layers,

wherein each individual preformed layer is a textile layer coated or impregnated with resin or the rubber material, and

at least one layer of which contains a matrix of reinforcing components.

2. (Previously Presented) The substrate according to claim 1 wherein the individual preformed layers are stacked in the form of a laminate.

3. (Previously Presented) The substrate according to claim 2 wherein a required number of individual preformed layers are stacked for a particular application of the belt in a papermaking machine.

4. (Previously Presented) The substrate according to claim 1 wherein the individual preformed layers are comprised of woven, nonwoven or spiral wound strips of woven and nonwoven materials.

5. (Original) The substrate according to claim 4 wherein the nonwoven materials are spun bonded, wet laid, air laid, knitted, extruded, or spiral-linked.

6. (Original) The substrate according to claim 1, wherein the substrate is coated on at least one outside surface with a polymeric resin material or the rubber material.

7. (Original) The substrate according to claim 6, wherein the polymeric resin material is

a thermoplastic resin or thermosetting polymer.

8. (Original) The substrate according to claim 7 wherein the resin is from the group consisting of polyurethane, polypropylene, polyethylene, and silicone.

9. (Previously Presented) The substrate according to claim 1, wherein at least one individual preformed layer is comprised of yarns having a non-circular cross section.

10. (Original) The substrate according to claim 1 wherein the reinforcing components are fabricated from monofilaments, multifilaments, continuous fine filaments or spun yarns of synthetic fibers.

11. (Original) The substrate according to claim 10, wherein the filaments or fibers have profiled or multi-lobed cross sections.

12. (Original) The substrate according to claim 1, wherein an outer surface of the substrate has grooves or blind-drilled holes.

13. (Previously Presented) The substrate according to claim 1, wherein the individual preformed layers include: a. a surface layer; b. an intermediate layer; c. a reinforced central core layer; and d. a backing layer.

14. (Withdrawn) A method of making a substrate of an endless belt to be used in papermaking applications comprising the steps of: a. coating or impregnating at least one layer of a plurality of layers of a material, at least one of which contains a reinforcing material, to form a preformed coated or impregnated layer; b. combining the coated or impregnated layers to form a structure; and c. processing the structure to form a laminate.

15. (Withdrawn) The substrate according to claim 14, wherein at least one layer is comprised of yarns having a circular cross section.

16. (Withdrawn) The method according to claim 14 wherein the layers are comprised of monofilaments, multifilaments, continuous fine filaments, or staple fibers.

17. (Withdrawn) The method according to claim 16 wherein the filaments or fibers have profiled or multi-lobed cross-sections.

18. (Withdrawn) The method according to claim 16 further comprising a step of creating grooves or blind-drilled holes in an outer surface of the substrate.

19. (Withdrawn) The method according to claim 14 wherein the at least one layer is coated or impregnated with a polymeric resin.

20. (Withdrawn) The method according to claim 19 wherein the polymeric resin is from the group consisting of polyurethane, polypropylene, polyethylene, and silicone.

21. (Withdrawn) The method according to claim 19 wherein the polymeric resin is in the form of a sheet.

22. (Withdrawn) The method according to claim 14, wherein the reinforcing material is comprised of woven, nonwoven or spiral wound strips of woven and nonwoven materials.

23. (Withdrawn) The method according to claim 22, wherein the nonwoven materials are spun bonded, wet laid, air laid, knitted, extruded, or spiral-linked.

24. (Withdrawn) A method of making a substrate of an endless belt to be used in a papermaking application comprising the steps of: a. combining preformed layers of a material containing a matrix of a prepolymer and a curing agent to form a structure; b. processing the structure to form a laminate; and c. curing the structure.

25. (Withdrawn) A method of producing a papermaker's process belt comprising the steps of: coating or impregnating at least one layer of a plurality of layers of a preformed material with a polymer resin or rubber material, wherein at least one layer includes a reinforcing component for stability in a machine direction (MD) or a cross-machine direction (CD) of the belt; combining the layers to form a substrate or base substrate; and forming the substrate or base substrate into an endless belt.

26. (Withdrawn) The method according to claim 25, further comprising the step of coating the belt with a polymeric resin or a rubber material on at least one outside surface.

27. (Withdrawn) The method according to claim 25, wherein said layers are laminated together by promoting a chemical reaction between respective layers.

28. (Withdrawn) The method according to claim 25, wherein said layers are laminated together using heat and pressure.

29. (Withdrawn) The method according to claim 25, wherein a respective layer is of a construction taken from the group consisting essentially of woven, or nonwoven, such as spiral-link, MD or C D yarn arrays, knitted, extruded mesh, or material strips which are ultimately spiral wound to form a substrate having a width greater than a width of the strips.

30. (Withdrawn) The method according to claim 25, wherein a component in a respective layer is one of thermoplastic, thermoset, reactive materials or rubber material.

31. (Withdrawn) The method according to claim 25, wherein a respective textile layer is made by one of spun bonded, wet laid and air laid processes impregnated with a polymer resin or a rubber material.

32. (Previously Presented) A papermaker's process belt comprising:

a plurality of individual layers of preformed material that are first coated with a polymer resin or rubber material individually and then combined to form a substrate of the belt,

wherein at least one individual layer includes a reinforcing component for stability in a machine direction (MD) or a cross-machine direction (CD) of the belt.

33. (Original) The belt according to claim 32, wherein the finally formed belt has a resin-coat or a rubber material on at least one outside surface.

34. (Previously Presented) The belt according to claim 32, wherein the individual layers are laminated together by promoting a chemical reaction between respective layers.

35. (Previously Presented) The belt according to claim 32, wherein the individual layers are laminated together using heat and pressure.

36. (Previously Presented) The belt according to claim 32, wherein the individual layer is selected from the group consisting of woven, nonwoven, spiral-link, MD yarn array, CD yarn array, knitted, extruded mesh, and material strips which are ultimately spiral wound to form a layer having a width greater than a width of the strips.

37. (Original) The belt according to claim 32, wherein the polymer resin is one of thermoplastic, thermoset, or reactive materials.

38. (Previously Presented) The belt according to claim 32, wherein the individual layer is made by one of spun bonded, wet laid and air laid processes impregnated with resin or a rubber material.

39. (Original) The substrate according to claim 1, wherein the polymeric resin material is a thermoplastic resin or thermosetting polymer.

40. (Original) The substrate according to claim 1 wherein the resin is from the group consisting of polyurethane, polypropylene, polyethylene, and silicone.

APPENDIX II

EVIDENCE

- I. Exhibit I: Declaration of Francis L. Davenport under 37 C.F.R. §1.132,
entered by the Examiner in the Office Action mailed July 10, 2009.

EXHIBIT I

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Keith FitzPatrick
Serial No. : 10/612,196
For : SUBSTRATE FOR ENDLESS BELT FOR USE IN
PAPERMAKING APPLICATIONS
Filed : July 2, 2003
Examiner : Andrew T. Piziali
Art Unit : 1794
Confirmation No. : 4118

745 Fifth Avenue
New York, NY 10151

DECLARATION OF FRANCIS L. DAVENPORT UNDER 37 C.F.R. §1.132

Commissioner for Patents, P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I, Francis L. Davenport, declare and state that:

1. I make this statement in connection with U.S. Application Serial No. 10/612,196 ("the '196 application").
2. I am an Engineer and an employee of Albany International Corp., the assignee of the '196 application.
3. I received BS Ch E degree from Clarkson University in Potsdam, NY. I have been employed by the assignee of this application, since 1974. In view of my education and experience, I consider myself to be an expert in the field to which this application pertains.
4. I am familiar with the prosecution history of the '196 application, up to and including the Notice of Panel Decision from Pre-Appeal Brief Review mailed on May 13, 2009.

5. Claims 1-11, 13 and 32-40 are rejected under 35 U.S.C. §102(b) or, in the alternative, under 35 U.S.C. §103(a) over U.S. Patent No. 5,753,485 to FitzPatrick ("FitzPatrick"). Claims 1 and 32 are independent.

6. Claim 1 recites, inter alia:

A substrate useful for making an endless belt in a papermaking machine application comprising:

a plurality of individual preformed layers and a polymeric coating or impregnating material or rubber material that is part of each of said individual preformed layers,

wherein each individual preformed layer is a textile layer coated or impregnated coated or impregnated with resin or the rubber material, and

at least one layer of which contains a matrix of reinforcing components.

7. Independent claim 32 recites: "A papermaker's process belt comprising...a plurality of individual layers of preformed material that are first coated with a polymer resin or rubber material individually and then combined to form a substrate of the belt."
8. FitzPatrick fails to teach the above-recited limitations, and instead shows a single textile layer formed as a multilayer weave, and that structure is then coated.
9. The independent claims require a substrate including *a plurality of individual preformed layers and a polymeric coating or impregnating material or rubber material that is a part of each of these individual preformed layers*. Each individual preformed layer is a textile layer first coated/impregnated with resin or the rubber material -- i.e., the individual layers of preformed components are first coated or impregnated with a polymer resin and then combined to form the substrate of a belt for papermaking machine applications.
10. The properties of the claimed laminated substrate and the requirements for its use in papermaking, such as dewatering as in a shoe press belt, sheet support and uniform pressure distribution in the nip, or ease of transfer of the sheet of paper from one position to another, may be predetermined by application of these processes. In other words, belts having specific predetermined properties (including different properties on the face and shoe sides or face and back sides of the belt) may be produced by varying the "layers" or structures used in forming the instant substrate.

11. Thus the claims require a substrate that comprises a plurality of preformed layers and a polymeric coating, impregnating material or rubber material that is part of a respective layer, wherein each preformed layer is a textile layer or a textile layer coated or impregnated with resin or the rubber material, and at least one layer of which contains a matrix of reinforcing components. Thereafter the preformed layers are joined by heat and/or pressure and an additional resin coating may be applied to either or both outside surfaces.
12. Paragraphs 0036 and 0042 of the instant application clearly indicate that *each layer that makes up the belt is laminated to an adjacent layer*. Each preformed layer is a "textile layer" or a textile layer coated/impregnated with resin. The individual layers are first coated/impregnated with a polymer resin and then combined to form the substrate of the belt for papermaking machine applications. The coating/impregnating of the layers of the textile substrate can be carried out by the process described in FitzPatrick. Thus each layer has either a coating already, or has a layer of fusible material inserted between layers to allow lamination to take place. *Id.*, paragraphs 0038, 0042. It should also be noted one distinct structural advantage is that this technique causes nearly complete lamination *between adjacent layers* (100% coverage). Finally, the laminate could have a further resin coating as disclosed in paragraph 0044 of the instant specification.
13. FitzPatrick, on the other hand, discloses a nip press belt having a textile substrate impregnated and coated on at least one side with a polymeric resin material. FitzPatrick fails to teach the above-recited limitation, and instead shows a single textile layer formed as a multilayer weave, and that structure is then coated. *FitzPatrick does not disclose a multilayer structure as claimed in claim 1 and 32.*
14. In detail, FitzPatrick's long nip press belt has a textile substrate impregnated and coated on at least one side with a polymeric resin material. *FitzPatrick, Abstract*. The polymeric resin material is ground and buffed after being cured to provide the belt with a smooth surface and a uniform thickness. *Id.* The textile substrate may include textile components (monofilaments, continuous fine filaments or staple fibers) having non-circular cross sections with a plurality of lobes. *Id.*

15. As a result, FitzPatrick does not disclose the multilayer constructions recited in claims 1 and 32. FitzPatrick does not provide for a substrate "comprising a *plurality of preformed layers* and a polymeric coating or impregnating material or rubber material that is part of a respective layer, wherein *each preformed layer is a textile layer or a textile layer coated/impregnated with resin or the rubber material*, and at least one layer of which contains a matrix of reinforcing components" as claimed in claim 1. Nor does FitzPatrick provide for "*layers of preformed material that are first coated then combined to form a substrate of the belt*" as claimed in claim 32.
16. FitzPatrick, and Figure 6 specifically, shows three layers of material (e.g. yarns) not woven together. *FitzPatrick*, col. 5, lines 38-49. *After* those layers are brought into contact with each other, a *single* coating layer 50 is applied to this entire substrate of layers. *Id.* FitzPatrick specifically discloses that the transverse continuous fine filaments 46 and longitudinal continuous fine filaments 48 are not interwoven with one another, but form a non-woven matrix. *Id.* A polymeric resin coating 50 is provided on both sides of long nip press belt 44. *Id.* To those of ordinary skill in the art, the single polymeric resin coating 50 in FitzPatrick is clearly different from the *distinct* resin layers of the instant invention *i.e.* a polymeric coating or impregnating material or rubber material that is part of *each* of said individual preformed layers.
17. In contrast, as paragraphs 0036 and 0042 of the instant application clearly explain, each layer that makes up the belt is laminated to an adjacent layer. Each layer has either a coating already, or has a layer of fusible material inserted between layers to allow lamination to take place (paragraphs 0038, 0042). The claimed technique causes a fairly complete lamination between adjacent layers (nearly 100% coverage), thereby resulting in a structurally different construction than the impregnated structure of FitzPatrick.
18. Figure 5 is described at col. 5, lines 26-37 of FitzPatrick, and in particular, lines 32-35. Figure 5 clearly shows "[t]ransverse yarns, 30 are interwoven with longitudinal yarns 40 in a multilayer weave." *FitzPatrick*, col. 5, lines 32-35. There is no plurality of individual preformed layers that are "textile layers." Rather, Figure 5

shows a single textile layer formed of a multilayer weave. *Id.* Because FitzPatrick's layers are formed by interweaving, each individual layer cannot be preformed, nor first coated/impregnated with resin or the rubber material.

19. To summarize, Figure 6 of FitzPatrick shows three layers of materials such as yarns, which are brought together. This entire substrate is then covered with a single coating. See col. 5 lines 38-49 of *FitzPatrick*. Figure 5 shows a single textile layer formed of a multilayer weave. *FitzPatrick*, col. 5, lines 32-35. The claims, to the contrary, recite that "each individual preformed layer" is "coated or impregnated with resin or the rubber material" or that "a plurality of individual layers of preformed material [] are first coated with a polymer resin or rubber material individually and then combined to form a substrate of the belt." As each layer is accordingly coated or impregnated, the layers have fusible material which allows lamination between the layers to take place. Such a technique causes *a fairly complete lamination between adjacent layers, at nearly 100 percent coverage*, and this is something that FitzPatrick's structure does not achieve. Structurally, FitzPatrick's substrate does not have the distinct resin layers as claimed: "a polymeric coating or impregnating material or rubber material that is *a part of each said individual preformed layer*, wherein *each individual preformed layer* is a textile layer coated or impregnated with resin or the rubber material," (claim 1) or "*a plurality of individual layers of preformed material that are first coated with a polymer resin or rubber material individually and then combined to form a substrate of the belt*" (claim 32).
20. All statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true. These statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 23 June 2009


Francis L. Davenport

APPENDIX III

RELATED PROCEEDINGS

None